

AMENDMENTS TO THE CLAIMS

Claims pending

- At time of the Action: Claims 1-11, 13-15, 17-28 and 34-39.
- After this Response: Claims 1-11, 13-15, 17-28 and 34-39.

Amended claims: Claim1 is amended in this Response.

1. (Currently Amended) A method for testing, the method comprising:
retrieving information descriptive of a graphics element rendered during
execution of the software being tested, the information identifying an executable
feature associated with the graphics element;
storing an association between the executable feature and the graphics
element in a map data structure;
executing the executable feature ~~stored in association~~associated with the
graphics element; and
updating the association in the map data structure upon execution of the
executable feature.

2. (Previously Amended) The method of claim 1 further comprising, in
response to executing the executable feature:
displaying a second graphics element;
retrieving information descriptive of the second graphics element, the
information including a second executable feature associated with the
second graphics element;
storing the second executable feature in association with the second

1 graphics element in the map data structure; and

2 executing the second executable feature stored in association with the
3 second graphics element.

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5 3. (Original) The method of claim 1 wherein the retrieving comprises
6 capturing information pertaining to the graphics element.

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8 4. (Previously Amended) The method of claim 1 wherein the storing
9 includes updating an indicator associated with the graphics element when the ~~an~~
10 executable feature stored in association with the graphics element is executed.

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12 5. (Previously Amended) The method of claim 1 wherein the storing
13 includes organizing the retrieved information such that the executable feature
14 stored in association with the graphics element can be interpreted by a computer-
15 executable application capable of accessing the retrieved information.

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17 6. (Previously Amended) The method of claim 1 wherein the storing
18 includes organizing the retrieved information such that the executable feature
19 stored in association with the graphics element can be interpreted by a user
20 capable of accessing the retrieved information from memory.

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22 7. (Previously Amended) The method of claim 1 further comprising
23 selecting the executable feature based on the association stored in the map data.

1 8. (Original) The method of claim 7 wherein the selecting comprises
2 selecting an executable feature not previously executed.

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4 9. (Original) The method of claim 8 wherein the selecting comprises reviewing
5 an indicator to select an executable feature not previously executed.

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7 10. (Original) The method of claim 7 wherein the selecting comprises
8 selecting executable features in a depth-first mode of operation.

9
10 11. (Original) The method of claim 7 wherein the selecting comprises
11 selecting executable features in a breadth-first mode of operation.

12
13 12. (Canceled)

1 13. (Previously Amended) A system for generating a map that associates a
2 graphics element of a graphical user interface of a software application with an
3 executable feature of the software application, the system comprising:

4 a capture agent for retrieving information descriptive of a plurality of
5 graphics elements rendered during execution of the software application, the
6 information including an executable feature associated with each graphics
7 element;

8 an application driver for storing an association between each executable
9 feature and corresponding graphics element in a map data structure and for
10 deterministically selecting one of the executable features stored in the map
11 data structure; and

12 a command agent for executing the selected executable feature.
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14 14. (Original) The system of claim 13 wherein the capture agent is
15 invoked by the application driver.
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17 15. (Original) The system of claim 13 wherein the capture agent submits
18 the retrieved information to the application driver.
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20 16. (Canceled)
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22 17. (Previously Amended) The system of claim 13 wherein the application
23 driver deterministically selects one of the executable features that has not been
24 previously executed.
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1 18. (Previously Amended) The system of claim 17 wherein the application
2 driver reviews an indicator to select the one executable feature.

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4 19. (Previously Amended) The system of claim 13 wherein the application
5 driver deterministically selects executable features in a depth-first mode of
6 operation.

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8 20. (Previously Amended) The system of claim 13 wherein the
9 application driver deterministically selects executable features in a breadth-
10 first mode of operation.

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12 21. (Original) The system of claim 13 wherein the application driver updates
13 an indicator associated with the graphics element when an executable feature
14 stored in association with the graphics element is executed.

1 22. (Previously Amended) A method for systematically invoking an
2 executable feature of a software application having a graphical user interface, the
3 method comprising:

4 retrieving information descriptive of at least one graphics elements
5 rendered during execution of the software application, the information including
6 an executable feature associated with each of the graphics elements;

7 storing an association between each executable feature and corresponding
8 graphics element in a map data structure;

9 selecting one of the executable features that has not been previously
10 executed; and

11 executing the selected executable feature.

12
13 23. (Previously Amended) The method of claim 22 further comprising, in
14 response to executing the selected executable feature:

15 displaying another graphics element:

16 retrieving information descriptive of the other graphics element, the
17 information including another executable feature associated with the other
18 graphics element;

19 storing another association in the map data structure, the other association
20 associating the other executable feature with the other graphics element;

21 selecting from the map data structure the other executable feature
22 that has not been previously executed; and

23 executing the selected other executable feature.
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1 24. (Original) The method of claim 22 wherein the retrieving comprises
2 capturing information pertaining to the graphics element.

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4 25. (Original) The method of claim 22 wherein the storing comprises updating
5 an indicator associated with the graphics element when an executable feature
6 stored in association with the graphics element is executed.

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8 26. (Original) The method of claim 22 wherein the selecting comprises
9 reviewing an indicator to determine an executable feature not previously
10 executed.

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12 27. (Original) The method of claim 22 wherein the selecting comprises selecting
13 executable features in a depth-first mode of operation.

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15 28. (Original) The method of claim 22 wherein the selecting comprises selecting
16 executable features in a breadth-first mode of operation.

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18 29. (Canceled)

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20 30. (Canceled)

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22 31. (Canceled)

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24 32. (Canceled)

1 33. (Canceled)

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3 34. (Previously Added) A computer-readable storage medium having
4 computer-executable instructions that when executed by a computer performs a
5 method comprising:

6 a) determining a state of a target application based on a plurality of
7 graphics elements currently rendered on a display via a graphical user interface;

8 b) associating each of the graphics elements for the state with an
9 executable feature of the target application;

10 c) deterministically selecting one of the graphics elements that has not
11 been previously selected;

12 d) executing the executable feature associated with the selected graphics
13 element to obtain a new state; and

14 e) repeating steps a-d for the new state.
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16 35. (Previously Added) The computer-readable storage medium of claim 34,
17 further comprising storing the association between each graphics element with
18 its corresponding executable feature in a map.
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20 36. (Previously Added) The computer-readable storage medium of claim 35,
21 further comprising storing an indicator for each graphics element to indicate
22 whether the graphics element has been previously executed.
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24 37. (Previously Added) The computer-readable storage medium of claim 35,
25 wherein deterministically selecting one of the graphics elements uses the map.

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2 38. (Previously Added) The computer-readable storage medium of claim 34,
3 wherein deterministically selecting one of the plurality of graphics elements is
4 performed in a breadth-first manner.

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6 39. (Previously Added) The computer-readable storage medium of claim 34,
7 wherein deterministically selecting one of the plurality of graphics elements is
8 performed in a depth-first manner.
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